

AMENDMENTS TO THE SPECIFICATION

Please replace the second full paragraph on page 4 of the Specification with the following amended paragraph:

-- The procedure takes place in a centrifuge having a centrifuge chuck 1. As shown in FIG. 1, a solid base 2 is placed on the centrifuge chuck 1. Optically transparent glass or polymer, including multilayer[[],] substrates with pre-fabricated ILs, and nontransparent materials, including metal, glass or polymer substrates, can be used as a solid base. The solid base 2 has surface details (a relief pattern) 2a as required to form the relief-carrying layer.--

Please replace the last paragraph on page 4, and continuing onto page 5 of the Specification with the following amended paragraph:

-- As shown in FIG. 5, the information relief 6a is filled with a photopolymeric composition 7 with a dye (dye-in-polymer), similar[[ly]] to the procedure described in the above-cited U.S. Pat. No. 6,039,898, to which reference can be made for the details of that procedure. Thus, using for instance a metal matrix and a flexible transparent film, one can obtain a film carrier of a fluorescent IL, for example a film disc 8. As shown in FIG. 6, multiple film discs 8 are further arranged by means of adhesive layers 9 into a multilayer block 10, for instance, an FMD (fluorescent multilayer disc). The adhesive layer thickness is determined by external pressure and can be preset by the magnitude of that pressure. The adhesion can be achieved for instance by piling and pressing a few film discs 8 followed by photo-or thermosolidification. In the case when a flexible transparent matrix and a substrate with pre-arranged layers are used, the FMD is formed by consecutive building-up of layers similarly to the procedure proposed in the above-cited WO 99/47327 A1, to which reference can be made for the details of that procedure.--

Please replace the last paragraph on page 6, and continuing onto page 7 of the Specification with the following amended paragraph:

-- The layer designated to be diffused with a fluorescent dye is formed on the surface of the replica information relief from a 3 wt.% [[of]] polyacrylic acid solution in a mixture of 80% ethyl glycol[[],] and 20% isopropanol by spin-coating. On top, ~~from~~ of the

ethanol solution, a layer of fluorescent dye is applied, for instance Oxazine 1, with concentration 0.03×10^{-3} mol/l. Thereafter the replica with the applied layers is placed into a heating cabinet to be heated for 10 minutes at $70[[_C]]^{\circ}\text{C}$. --

Please replace the first full paragraph on page 7 of the Specification with the following amended paragraph:

-- ~~In a similar way~~ Example 2 is similar to Example 1, except that the dye-free PPC from Example 8 is used as a polymer composition.--

Please replace the last paragraph on page 7, and continuing onto page 8 of the Specification with the following amended paragraph:

-- Thin-layer fluorescent polymer coats with distributed fixed luminescence centers can be prepared by using photosolidified liquid polymer compositions containing luminophores. ~~For this purpose, onto a film formed on a centrifuge, a~~ A composition is spin-coated ~~forming to form~~ a thin liquid film distributed across the replica surface in conformity with the shape of its relief and consisting predominantly of photosolidified, ~~generally by eation and/or radical mechanisms,~~ monomers and oligomers and dopants, which determine determining spectral and luminescent, physical and mathematical, adhesive and other characteristics of the polymer coat following its solidification by UV light. The film is formed on a centrifuge, and photosolidification is generally by cation and/or radical mechanisms. The liquid composition applied should possess a good spreadability on the replica surface, high adhesion, and ease of forming a liquid and solidified film uniformly spread on the surface and differentially in terms of the replica relief[[],]. ~~which~~ The film can be attained through using a specific composition as well as coating and solidification conditions. Photosolidification of the composition results in a bilayer structure with a polymer replica and a thin-film fluorescent polymer coat[[]]. ~~said~~ The bilayer structure represents [[as]] a unit of a single-layer fluorescent information carrier. From similarly generated single-layer carriers, there can be fabricated multilayer fluorescent information carriers of various types by cementing them together. --

Please replace the ninth full paragraph on page 8 of the Specification with the following amended paragraph:

-- components improving the adhesion between the surfaces of the formed IL and the adhesive or buffer layers, ~~including~~ at the expense of a chemical reaction between them.--

Please replace the last paragraph on page 8, and continuing onto page 9 of the Specification with the following amended paragraph:

-- A PS includes photopolymerizable[.,] (predominantly by cation and/or radical mechanisms), low- and/or high-molecular components, which are preferably liquid. ~~PC~~ Photopolymerizable composition components can comprise functional groups photopolymerizable by both cation and radical mechanisms, with groups of different chemical nature being incorporated in both different substances and the same one simultaneously and accordingly polymerized by a hybrid mechanism. For cation-mechanism-polymerizable components there can be used cyclic esters, formals, acetals, lactones, mono- and polyfunctional epoxides, epoxyoligomers, thiiranes, vinyl monomers including fluorinated and organosilicon compounds, with epoxy compounds being most preferable. For radical-mechanism-polymerizable components there can be used substances containing unsaturated double bonds, predominantly of (metha)acrylic type including fluorinated ones. For components polymerizable by a hybrid mechanism, it is preferable to use glycidyl ethers with unsaturated double bonds. PS may comprise mono- or ~~polyfunctional~~ polyfunctional comonomers ~~improving that improve~~ the PS sensitivity to the action of actinic radiation and/or physical and mechanical and/or optical and/or spectral and luminescent properties and/or adhesive characteristics of the photosolidified information layer. --

Please replace the first full paragraph on page 9 of the Specification with the following amended paragraph:

-- For polymerization photo initiators, there can be used heteroorganic or metalloorganic compounds or mixtures thereof[.,]. These compounds forming form homogeneous solutions with the other IL components and ~~generating~~ generate acids, predominantly ~~Brenstead's~~ Bronsted acids and/or free radicals under the action of actinic radiation in the range of 300-650 nm. --

Please replace the second full paragraph on page 9 of the Specification with the following amended paragraph:

-- For fluorescent dyes, there can be used photostable dyes having a high luminescence quantum yield, ~~forming to form~~ forming to form homogeneous solutions with the other IL components, and ~~maintaining maintain~~ maintaining their spectral and luminescent characteristics under IL photosolidification conditions. Dyes should be preferably chosen from the series of laser dyes. --

Please replace the last paragraph on page 9, and continuing onto page 10 of the Specification with the following amended paragraph:

-- The fluorescent polymer layer is generated on the replica surface by spin coating of the liquid IL composition with the components as given above, and is photosolidified by UV radiation of a specific spectral range until a solid polymer film is formed. The resulting solid polymer film is highly-adhesive to the replica, ~~solid polymer~~, optically transparent, homogeneous, and differentiated with respect to the volume fluorescent layer. ~~is generated for which the~~ The topology and ~~accordingly~~ spatial distribution ~~of the of~~ of the excited luminescence intensity are prescribed by the replica surface shape and conditions of applying the liquid composition. --

Please replace the first full paragraph on page 10 of the Specification with the following amended paragraph:

-- The polymerizable substance (PS) composition is prepared by mixing components as follows: Bis(4-glycidyloxyphenyl) methane (80 wt%), 1,2,7,8-Diepoxyoctane (10 wt%) and Neopentylglycol (10 wt%). To the PS, fluorescent dye (FD) Rhodamine 6G is added proceeding from $0.01 \times 10^{-3} \text{ M/l}$ PS. Then, a solvent is prepared consisting of 2-Ethoxyethanol, 2-Propanol and Ethanol in a proportion of 2:2:1 (by volume). The solvent is added to the PS-FD composition to yield a 6[[-]]wt% solution. The solution is stirred for 2 hours at 40[[_C]]°C ~~til~~ until complete ~~dissolving~~ dissolution of all components ~~of the in the~~ composition mixture. Upon cooling the solution down to 20[[_C]]°C, Diphenyliodonium hexafluoroarsenate (4 wt%) is added. The resulting solution is stirred for 1 hour, filtered and used for coating the PPC replica. --

Please replace the second full paragraph on page 10, and continuing onto page 11 of the Specification with the following amended paragraph:

--By mixing components a PS is prepared consisting of Bisphenol A diglycidyl ether (75 wt%), 1,4-cyclohexanedimethanol diglycidyl ether (5 wt%), and 1,2,7,8-Diepoxyoctane (20 wt%). To the PS, FD Coumarin 314 is added ~~proceeding~~ starting from 0.05×10^{-3} M/l PS. Then, a solvent is prepared consisting of 2-Ethoxyethanol, 4-Hydroxy-4-methyl-2-pentanone, 2-Propanol and Ethanol in a proportion of 1:1:2:1 (by volume). The PS-FD composition is dissolved in the solvent at $35[[_C]]^{\circ}\text{C}$ for 4 hours to yield a $4[[-]]$ wt% homogeneous solution. To this solution Diphenyliodonium hexafluoroarsenate (5 wt%) is added. The resulting solution is stirred, filtered and used for coating the PPC replica. --

Please replace the first full paragraph on page 11 of the Specification with the following amended paragraph:

-- By mixing components a PS is prepared consisting of Bisphenol A diglycidyl ether (70 wt%), 1,4-Butanediol diglycidyl ether (15 wt%), Bis(3,4-epoxycyclohexylmethyl) adipate (5 wt%) and neopentyl glycol ethohylate (10 wt%). To the PS, FD Coumarin 153 is added ~~proceeding~~ starting from 0.05×10^{-3} M/l PS. Then, a solvent is prepared consisting of 4-Hydroxy-4-methyl-2-pentanone, 1-Butanol, 2-Propanol, Ethyleneglycol and 2,2,3,3-Tetrafluoro-1-propanol in a proportion of 1:1:2:1:0.5 (by volume). The PS-FD composition is dissolved in the solvent at $40[[_C]]^{\circ}\text{C}$ for 3 hours to yield a $5[[-]]$ wt% homogeneous solution. To this solution Diphenyliodonium hexafluoroantimonate (3 wt%) is added. The resulting solution is stirred, filtered and used for coating the PPC replica.--

Please replace the second full paragraph on page 11 of the Specification with the following amended paragraph:

--By mixing components a PS composition is prepared consisting of Diglycidyl-1,2-cyclohexanedicarboxylate (45 wt%), 3-[Bis(glycidyloxymethyl)-1-methoxy]-1,2-propanediol (45 wt%), Poly(Bisphenol A-co-epichlorohydrin),glycidyl end-capped ($M_n=480$) (2 wt%) and Dipentaerythritol (8 wt%). To the PS, FD Rhodamine 6G is added

~~proceeding starting~~ from 0.05×10^{-3} M/l PS. Then, a solvent is prepared consisting of 4-Hydroxy-4-methyl-2-pentanone, 1-Butanol, methylethyl ketone and Ethanol in a proportion of 2:2:1:1 (by volume). The PS-FD composition is dissolved in the solvent at $40[[_C]]^{\circ}\text{C}$ for 4 hours to yield a 5[[-]]wt% homogeneous solution. To this solution then Diphenyliodonium hexafluoroarsenate and Triphenylsulfonium hexafluoroantimonate are added in a proportion of 1:1 to make the total catalyst concentration 3 wt% with respect to PS. Thereafter ~~the~~ sensitizer thioxanthone is added ~~proceeding starting~~ from 10 wt% with respect to the catalyst. The solution is then stirred ~~till~~ until complete ~~dissolving~~ dissolution of all components, filtered and used for coating the PPC replica. --

Please replace the first full paragraph on page 12 of the Specification with the following amended paragraph:

--By mixing components a PS composition is prepared consisting of 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane-carboxylate (80 wt%), 3-diglycidyl-1,2-cyclohexanedicarboxylate (8 wt%), Poly[(o-cresyl glycidyl ether)-co-formaldehyde] ($M_n=870$) (2 wt%) and Poly(caprolactone) triol ($M_n=300$) (10 wt%). To the PS, FD Oxazine 1 is added ~~proceeding starting~~ from 0.04×10^{-3} M/l PS. Then, a solvent is prepared consisting of 4-Hydroxy-4-methyl-2-pentanone, 2-Methyl-3-heptanone, 3-Methyl-2-butanone and Cyclohexanone ~~in proportion~~ in a proportion of 1:1:2:2 (by volume). The PS-FD composition is then dissolved in the solvent to yield a 6[[-]] wt% homogeneous solution. Thereafter a solution of Triphenylsulfonium hexafluoroantimonate (20 wt%) in Propylene carbonate is prepared and added to the PS-FD solution to make the total catalyst concentration 1.5 wt% with respect to the PS. The resulting solution is then stirred, filtered and used for coating the PPC replica. --

Please replace the last paragraph on page 12, and continuing onto page 13 of the Specification with the following amended paragraph:

-- By mixing components a PS composition is prepared consisting of 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane-carboxylate (80 wt%), Glycerol proxylate triglycidyl ether (0.1 wt%) and Poly(vinylbutyral-co-vinylalcohol-co-vinyl acetate (9.9%). To the PS then FD Oxazine 1 is added ~~proceeding starting~~ from 0.1×10^{-3} M/l PS. Thereupon, a solvent is prepared consisting of 2-Ethoxyethanol, 1-Butanol, 2-Propanol and 3-Methyl-2-

butanone in a proportion of 4:4:2:1 (by volume). The PS-FD composition is then dissolved in the solvent to yield a 10[[-]]wt% homogeneous solution. Thereafter Diphenyliodonium hexafluoroarsenate and Triphenylsulfonium hexafluoroantimonate are added to the solution in a proportion of 1:1 to make the total catalyst concentration 3 wt% with respect to the PS and benzophenone as 5 wt% from the catalyst. The resulting solution is then stirred, filtered and used for coating the PPC replica. --

Please replace the second full paragraph on page 13 of the Specification with the following amended paragraph:

-- By mixing components a PS composition is prepared consisting of 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane-carboxylate (90 wt%), Poly(caprolactone) triol ($M_n=300$) (2 wt%) and Poly(vinylbutyral-co-vinylalcohol-co-vinyl acetate) (8%). To the PS then FD Oxazine 1 is added ~~proceeding~~ starting from 0.06×10^{-3} M/l PS. Thereupon, a solvent is prepared consisting of 2-Ethoxyethanol, 1-Butanol, 2-Propanol and 2,2,3,3,4,4,5,5-Octafluoro-1-pentanol in a proportion of 1:1:1:4 (by volume). The PS-FD composition is then dissolved in the solvent to yield a 4[[-]] wt% homogeneous solution. Thereafter a mixture of Triphenylsulfonium hexafluoroarsenate and Triphenylsulfonium hexafluoroantimonate is added to the solution in a proportion of 2:1 to make the total catalyst concentration 2 wt% with respect to the PS weight. The resulting solution is then stirred ~~til~~ until complete ~~dissolving~~ dissolution of all components, filtered and used for coating the PPC replica. --

Please replace the first full paragraph on page 14 of the Specification with the following amended paragraph:

-- By mixing components a PS composition is prepared consisting of 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane-carboxylate (90 wt%), Glycidyl methacrylate (2 wt%) and Poly(vinylbutyral-co-vinylalcohol-co-vinyl acetate) (8%). To the PS then ~~an FD~~ an FD is added consisting of a mixture of Oxazine 170 and Oxazine 1 in a proportion of 1:10 (by weight) ~~proceeding~~ starting from 0.1×10^{-3} M/l PS. Thereupon, a solvent is prepared consisting of 2-Ethoxyethanol, 1-Butanol, 2-Propanol and ~~1,1,1,3,3,4,4,4-Octafluoro-2-butanol~~ 1,1,1,3,3,4,4,4-Octafluoro-2-butanol in a proportion of 1:1:1:2 (by volume). The PS-FD composition is then dissolved in the solvent to yield a 3[[-]] wt% homogeneous solution. Thereafter Triphenylsulfonium hexafluoroantimonate is added to the solution on the basis of

1.5 wt% of the catalyst with respect to the PS weight. The resulting solution is then stirred ~~till~~ until complete ~~dissolving~~ dissolution of all components, filtered and used for coating the PPC replica.--

Please replace the second paragraph on page 14, and continuing onto page 15 of the Specification with the following amended paragraph:

--By mixing components a PS composition is prepared consisting of 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane-carboxylate (10 wt%), 4-Vinyl-1-cyclohexane diepoxide (70 wt%), Poly(propylene glycol) diglycidyl ether ($M_n=640$) (10 wt%), and Glycidyl methacrylate (10 wt%). To the PS then FD Rhodamine 6G is added ~~proceeding~~ starting from 0.03×10^{-3} M/l PS. Thereupon, a solvent is prepared consisting of 4-Hydroxy-4-methyl-2-pentanone, 1-Butanol, 1,1,1,5,5,6,6,6-Octafluoro-2,4-hexanedione, and Methyl ethyl ketone in a proportion of 2:2:1:1 (by volume). The PS-PD composition is then dissolved in the solvent at $40[[_C]]$ °C for 2 hours to yield a 3[[-]]wt% homogeneous solution. Thereafter a mixture of Triphenylsulfonium hexafluoroarsenate and Triphenylsulfonium hexafluoroantimonate is added to the solution in a proportion of 2:1 to make the total catalyst concentration 2.5 wt% with respect to the PS weight. The resulting solution is then stirred ~~till~~ until complete ~~dissolving~~ dissolution of all components, filtered and used for coating the PPC replica. --

Please replace the first full paragraph on page 15 of the Specification with the following amended paragraph:

--By mixing components a PS composition is prepared consisting of Ethylene glycol divinyl ether (85 wt%), Di(ethylene glycol)divinyl ether (10 wt%) and Trimethylolpropane trivinyl ether (5%). To the PS then an FD is added consisting of a mixture of Coumarin 334 and Pyrromethene 567 in a proportion of 1:1 (by weight) ~~proceeding~~ starting from 0.04×10^{-3} M/l PS. Thereupon, a solvent is prepared consisting of 2-Ethoxyethanol, 2-Butanol, 2-Propanol, 1,1,1,3,3,4,4,4-Octafluoro-2-butanol, 2,2,3,3-Tetrafluoro-1-propanol in ~~equal proportions~~ equal proportions (by volume). The PS-FD composition is then dissolved in the solvent to yield a 10[[-]]wt% homogeneous solution. ~~Thereafter Triphenylsulfonium~~ Thereafter, Triphenylsulfonium hexafluoroantimonate is added to the solution on the basis of 3.5 wt% of the catalyst with respect to the PS weight.

The resulting solution is then stirred ~~til~~ until complete ~~dissolving~~ dissolution of all components, filtered and used for coating the PPC replica. --

Please replace the second full paragraph on page 15 of the Specification with the following amended paragraph:

-- The composition as per Example 3 is spin-coated onto a PPC replica as per Example 17 at 5000 rpm. The resulting coat is then irradiated by UV light ~~[[of]]~~ from a 500-W high-pressure mercury lamp for 8 seconds at a distance of 30 cm. Solidification of the liquid IL yields a fluorescent information carrier. --

Please replace the fifth full paragraph on page 16 of the Specification with the following amended paragraph:

-- A PPC polymerizable by a radical mechanism can be composed of mono- and polyfunctional monomers and oligomers with unsaturated bonds, preferably from the (meth)acrylic series, such as :

- vinyl monomers and polyfunctional vinyl oligomers;
- unsaturated polyesters; and
- diene oligomers.

Please replace the seventh full paragraph on page 16 of the Specification with the following amended paragraph:

-- For photoinitiators of radical polymerization there can be used photoinitiators generating radicals when illuminated in the spectral range from 300 to 600 ~~nm~~ nm. --

Please replace the first full paragraph on page 17 of the Specification with the following amended paragraph:

-- For photoinitiators (0-10%) there can be used a mixture of photoinitiators generating radicals and protons (~~Bemstead's~~ Bronsted acids) in the spectral range 300-600 nm. --

Please replace the second full paragraph on page 17 of the Specification with the following amended paragraph:

-- For modifiers, the PPC polymerizable by both radical and cation mechanisms can be doped with polymer materials (0-80%) compatible with PPC components both prior to and following the solidification. --

Please replace the fifth full paragraph on page 17 of the Specification with the following amended paragraph:

-- To make a PPC for ~~a replica~~ a replica, 20 wt% of 1,6-hexanediol diacrylate (HDDA) (SR-238, Cray Valley), 35 wt% of ethoxylated[[1₁₀]] bisphenol A diacrylate (SR-602, Cray Valley), 20 wt% of epoxy novolac acrylate oligomer in HDDA (CN 112B70, Cray Valley), and 2 wt% of ~~Darocure 1173~~ the photoinitiator DAROCURE 1173 (Ciba-Geigy) are mixed at room temperature and filtered. The dosed amount of PPC is applied onto a nickel matrix and covered by a transparent polycarbonate substrate (~~FIG. 1~~). The resulting "sandwich" is irradiated by a 500-W UV-light lamp in the range of 300-400 nm for 20 seconds. The solidified replica with the substrate is separated from the nickel matrix and used for IL coating. --

Please replace the first full paragraph on page 18 of the Specification with the following amended paragraph:

-- ~~Similar to Example 15~~ Example 15 is similar to Example 14 except that as ~~an~~ a PPC for the replica, the following composition is used: 63 wt% of polyester acrylate (Synocure AC-1309, Cray Valley), 37 wt% of Styrene and 2 wt% of benzoin isobutyl ether. --

Please replace the second full paragraph on page 18 of the Specification with the following amended paragraph:

-- ~~Similar to Example 16~~ Example 16 is similar to Example 14 except that as ~~an~~ a PPC for the replica, the following composition is used: 23 wt% of modified urethane triacrylate (CN 922, Cray Valley), 5 wt% of 2-(2-ethoxyethoxy)ethylacrylate (SR 256, Cray Valley), 15 wt%

of monopropyleneglycol acrylate, 57 wt% of propoxylated[[3]] trimethylopropane triacrylate (SR 352, Cray Valley), and 2 wt% of ~~Irgacure 784~~ the photoinitiator IRGACURE 784(Ciba-Geigy). --

Please replace the third full paragraph on page 18 of the Specification with the following amended paragraph:

-- ~~Similar to Example 17 is similar to~~ Example 14 except that as ~~an a~~ a PPC for the replica, the following composition is used: 20 wt% of oligocarbonate methacrylate (OCM-2), 80 wt% of aliphatic urethane triacrylate with $M_n=5000$, and 2 wt% of ~~Irgacure 651~~ the photoinitiator IRGACURE 651 (Ciba-Geigy). --

Please replace the first full paragraph on page 19 of the Specification with the following amended paragraph:

-- ~~Similar to Example 18 is similar to~~ Example 14 except that as ~~an a~~ a PPC for the replica, the following composition is used: 50 wt% ethoxylated bisphenol A diacrylate (SR 349, Cray Valley), 10 wt% pentaerythritol triacrylate (SR 415, Cray Valley), 40 wt% of tripropylene glycol triacrylate (SR 306, Cray Valley) and 1 wt% of ~~Irgacure 1700~~ the photoinitiator IRGACURE 1700 (Ciba-Geigy). --

Please replace the second full paragraph on page 19 of the Specification with the following amended paragraph:

-- ~~Similar to Example 19 is similar to~~ Example 14 except that as ~~an a~~ a PPC for the replica, the following composition is used: oligocarbonate methacrylate (OCM-2, Alvar-M, Ltd.), 1 wt% of ~~Irgacure 651~~ the photoinitiator IRGACURE 651 (Ciba-Geigy) and 1 wt% of ~~Irgacure 1173~~ the photoinitiator IRGACURE 1173(Ciba-Geigy). --

Please replace the third full paragraph on page 19 of the Specification with the following amended paragraph:

-- ~~Similar to Example 20 is similar to~~ Example 14 except that as ~~an a~~ a PPC for the replica, the following composition polymerizable by hybrid mechanism is used: 10 wt%

of 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane carboxylate, 2 wt% of polypropyleneglycol of polypropyleneglycol M.W. 400, 15 wt% of tripropyleneglycol divinyl ester, 15 wt% of trimethylolpropane triacrylate (SR 351, Cray Valley), and 58 wt% of oligocarbonate methacrylate (OCM-2, Alvar-M, Ltd.); as photoinitiators, 2 wt% ~~Irgacure 500~~ IRGACURE 500 (Ciba-Geigy) and 2 wt% triarylsulfonium hexafluorophosphate are used. --

Please replace the fourth paragraph on page 19, and continuing onto page 20 of the Specification with the following amended paragraph:

-- ~~Similar to Example 21 is similar to~~ Example 19 except that as an a PPC for the replica, the following composition is used: 20 wt% of diepoxide propyleneglycol M.W. 600 (Laproxid 603; Macromer, Ltd.), 30 wt% of bisphenol A epoxy acrylate (CN 104, Cray Valley), 50 wt% of propoxylated[[2]] neopentyl glycol diacrylate (SR 9003, Cray Valley), 1 wt% of ~~Irgacure 149~~ the photoinitiator IRGACURE 149 (Ciba-Geigy) and 1 wt% of ~~Irgacure 261~~ the photoinitiator IRGACURE 261 (Ciba-Geigy). --

Please replace the first full paragraph on page 20 of the Specification with the following amended paragraph:

-- ~~Similar to Example 22 is similar to~~ Example 17 except that for a photoinitiator 2 wt% of ~~phenanthrenequinone~~ of phenanthrenequinone (Aldrich) and 1 wt% of triethanolamine are used. --

Please replace the second full paragraph on page 20 of the Specification with the following amended paragraph:

-- ~~Similar to Example 23 is similar to~~ Example 17 except that for a photoinitiator 2 wt% of camphorquinone (Aldrich) and 1 wt% of triethanolamine are used. --

Please replace the third full paragraph on page 20 of the Specification with the following amended paragraph:

-- ~~Similar to Example 24~~ is similar to Example 17 except that for a photoinitiator 1 wt% of Eosin B (Aldrich), 1 wt% of Dibutylaniline and 2 wt% of ~~Irgacure 651~~ the photoinitiator IRGACURE 651 (Ciba-Geigy) are used. --

Please replace the fourth full paragraph on page 20 of the Specification with the following amended paragraph:

-- ~~Similar to Example 25~~ is similar to Example 19 except that as ~~an a~~ a PPC for the replica, the following composition is used: 20 wt% of poly(vinyl butyral-co-vinyl alcohol-co-vinyl acetate) M.W. 70000 (Aldrich), 50 wt% of 1,6-hexanediol diacrylate, 30 wt% of 4-vinyl-1-cyclohexane 1,2-epoxide, 1 wt% of ~~Irgacure 500~~ the photoinitiator IRGACURE 500 (Ciba-Geigy), 2 wt% of UVI 6974 (Union Carbide) and 2 wt% of Triarylsulfonium hexafluoroantimonate. --

Please replace the last paragraph on page 20, and continuing onto page 21 of the Specification with the following amended paragraph:

-- ~~Similar to Example 26~~ is similar to Example 13 except that 0.1 wt% of UV absorber 2,4,2',4'-Tetraoxybenzophenone is doped in the composition. --

Please replace the first full paragraph on page 21 of the Specification with the following amended paragraph:

-- For sticking individual IL film carriers together in the multilayer fluorescent carrier via adhesive layers there can be used photo-and/or thermosolidified polymer compositions. The adhesive material must meet the following ~~demands~~ requirements: --

Please replace the second full paragraph on page 21 of the Specification with the following amended paragraph:

-- The above requirements ~~to~~ of the adhesive material can be satisfied through using a monomeric-oligomeric composition in combination with special dopants. Such dopants bleach the fluorescent dye disposed on the surface of the replica without contacting the dye disposed in the information pit. --

Please replace the sixth full paragraph on page 21 of the Specification with the following amended paragraph:

-- ~~Similar to Example 27 is similar to~~ Example 17 except that for an adhesive layer, the PPC is also doped with 3 wt% of the photoinitiator ~~Irgacure-1700~~ IRGACURE 1700 (Ciba-Geigy). --

Please replace the first full paragraph on page 22 of the Specification with the following amended paragraph:

-- ~~Similar to Example 28 is similar to~~ Example 17 except that the PPC is additionally doped with 4 wt% benzoyl peroxide and 0.1 wt% dibutylaniline. --